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ABSTRACT

The relationship between religious attitudes or orientations and prejudice was studied in a sample of 337 adults: college males, lay persons and ministers from local congregations, and seminary students in Louisiana and Texas. The study is based on Gordon Allport's theory concerning intrinsic and extrinsic religiousity. Ten religious groups were represented: Catholic; Episcopal, Methodist, Lutheran, Presbyterian, Christian/Church of Christ, Baptist, Pentacostal, Jewish, and Other. A 227-item test battery was constructed from the Committed-Nominal Religious Attitude Scale, Allport's Religious Orientation Scales, Religious Fundamentalism Scale, Altered Ethnocentrism Scale, Rokeach's Dogmatism Scale, and Crowne and Marlowe's Social Desirability Scale. Demographic variables included age, location, education, and social status. Correlational and multivariate analysis of variance showed that a general factor of religiousity, or of indiscriminantly pro-religious attitudes, was represented. This hypothetical pro-religious person is 35 or older, politically conservative, educated, and a church leader. Another profile, corresponding to Allport's extrinsic individual, was characterized as narrow-minded, less educated, lower middle class, and not a church leader. Results also suggested that the religious commitment and intrinsic nature of churchgoers increases with age. Further research using more valid tests was recommended. (Author/GDC)

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# Multivariate Analyses of Social and Religious Attitudes

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The relationship between religious attitudes or orientations and prejudice was the general focus of this study. It is based on the theorizing of Gordon Allport concerning intrinsic and extrinsic religiosity. Multivariate techniques were used to clarify relationships.

The Committed-Nominal Religious Attitude Scale (C-NRAS) a six factor instrument developed by the author in a previous study (see Table 1) was used along with Allport's Religious Orientation Scales. Other dependent measures were a Religious Fundamentalism Scale (after Dynes), an Altered Ethnocentrism Scale (after Levinson), Rokeach's Dogmatism Scale, Crowne and Marlowe's Social Desirability Scale. These were included in a 227 item battery. Several demographic variables were also included in the analyses (see Table 2).

The 337 subjects were from four basic sources: college males, lay men from local congregations, seminary students, and ministers from local congregations. The subjects were from four cities: New Orleans and Baton Rouge, Louisiana, and Dallas and Austin, Texas. Ten religious groups were represented (see Table 3). The sample has limited generalizability.

The Statistical Analysis System (SAS, Barr & Goodnight) MANOVA and CANCORR routines were used. Two canonical correlation analyses were run: an overall analysis of 20 variables and an analysis of the 12 dependent variables. Variables were categorized for the MANOVA analysis, but the continuous variables were run using the raw scores for the CANCORR analysis.

The first canonical variable found in the 20 variable overall CANCORR analysis among the dependent variables appeared to represent a general factor of religiosity. It loaded heavily on the CNRAS Committed scales A, E, and I and on ROS Intrinsic, and on CNRAS Nominal scale D which

was identified as a measure of indiscriminately pro-religious attitudes. It loaded moderately on Fundamentalism, lightly on CNRAS nominal scale B, and negatively on CNRAS nominal factor C and ROS Extrinsic (see Table 4). With the loadings of the independent variables, we can build the profile of a somewhat indiscriminately pro-religious individual who has committed and intrinsic attitudes and is somewhat fundamental. This hypothetical person is 35 or older, politically conservative, with a graduate school education, who holds a position of leadership in the church and attends services and functions of the church more frequently than the average church member (see Table 4). This would probably be representative of many ministers and lay leaders in congregations.

The canonical correlation analysis of the twelve dependent variables yielded results on the first pair of variates which were very similar to those found on the first dependent variate of the 20 variable analysis just mentioned. On this twelve variable analysis, the six CNRAS scales were in one group and the other six dependent variables were in the other. By looking at these variables across all the independent variables, the relationships among them were made clearer. On the first pair of canonical variates, the CNRAS Committed scales A, E, and I, and the indiscriminately pro-religious Nominal scale D; and the Group 2 scales, Religious Fundamentalism and ROS Intrinsic were all very heavily loaded. CNRAS nominal scales B and C and ROS Extrinsic all loaded in the same direction as earlier, but not meaningfully. Dogmatism was loaded meaningfully here - while having been almost meaningful before - and adds a new dimension to the profile (see Table 5).

On the overall 20 variable analysis, the second canonical correlation dependent variable had loadings on Ethnocentrism, Fundamentalism, Dogmatism,

and CNRAS Nominal Scale B. ROS Extrinsic was almost meaningfully loaded on this canonical variable. These loadings combined with the correlated independent variable loadings, gives the profile of a prejudiced, narrow-minded individual who is socially and religiously conservative, and who religious attitudes serve to support his social attitudes. This individual has a high school diploma with possibly some college education, is lower midde class socially, and has no position of leadership in the church. In many ways, this appears to be the type of individual Allport would have called extrinsic (see Table 4).

The canonical correlation analysis of the twelve dependent variables had a second pair of canonical variates which was different from the above on several scales, but was still generally closed-minded nominalism. It better presented a profile of extrinsic nominalism, as I would have predicted it. All three CNRAS Nominal scales were loaded on it with scale B the heaviest loading. ROS Extrinsic was meaningfully loaded as were Ethnocentrism and Dogmatism, but not Fundamentalism (see Table 5).

Loadings of the dependent variables on the third canonical variable were meaningful for the three Committed CNRAS scales A, E, and I and for Fundamentalism. ROS Intrinsic was almost meaningfully loaded. Combining these with the meaningful loadings on the independent variate, we find the following profile: A young, religiously fundamental individual with committed attitudes, who attends services and functions more than the average church member. He sees himself as lower-middle class, but the McGuire-White tables place him from an upper middle class background. This would appear to be the profile of a committed college student or seminarian (see Table 4).

The third pair of variates on the twelve dependent variable analysis corresponded only slightly to the profile just mentioned. Positive loadings on these variates were: CNRAS scale E, Dogmatism, and Fundamentalism. Negative loadings were: CNRAS scale B, Ethnocentrism and ROS Extrinsic. By removing the effect of the independent variables, the relationships of the dependent variables were altered radically. These loadings presented a profile of a person who is individually committed and not extrinsic, who has fundamental attitudes, but who rejects both the organized church and using the church for secular gains. He is narrow-minded, but rejects ethnocentric prejudice (see Table 5). This seems to describe many college students I have known, who are rebelling against the hypocracies of the church.

The multiple analysis of variance or MANOVA showed significant overall effects due to Age, Social Status (McGuire-White), Number of Services, Number of Functions, and Political Position (see Table 6). Looking at the correlation coefficients between each meaningful canonical variable due to a significant MANOVA effect and each of the dependent variables, certain relationships can be seen.

On Age, positive correlations were found for the CNRAS scales D, E, and I, and for ROS Intrinsic. Negative correlations were found for CNRAS scale C and ROS Extrinsic. This suggested that as churchmen grow older, they become more religiously committed and intrinsic (see Table 7). This conclusion was supported by the table of adjusted means for age.

Social Status (McGuire-White) correlated positively with CNRAS scales B, D, E, and A (in order of weight), Ethnocentrism, Fundamentalism and Dogmatism. This indicated that middle class churchmen were more closed-minded religiously and socially, more ethnocentric and fundamental, but

with a little more anti-clerical committed thinking than upper class churchmen (see Table 7).

The first canonical variable on Number of Services correlated positively with CNRAS scales I, A, D, and E, ROS Intrinsic and Fundamentalism; and negatively with ROS Extrinsic. This indicated that fundamental, committed, intrinsic individuals with some indiscriminately pro-religious attitudes, attend church more than other church members (see Table 7).

The second canonical variable on Number of Services correlated positively but weakly on Fundamentalism and ROS Extrinsic and negatively on ROS Intrinsic and CNRAS scale D. This showed that there was a slight tendency for fundamental extrinsic people who reject intrinsic and indiscriminately pro-religious attitudes, to attend more often also. The first group just mentioned, was supported by the adjusted means, but the second was not. (See Table 7).

The Number of Functions was identical to the first group just mentioned, except that the high loading for Fundamentalism was completely eliminated (see Table 7). The adjusted means showed this clearly.

Political Position correlated positively on Ethnocentrism, Fundamentalism, Dogmatism and CNRAS scales B and D in descending order. This indicated that more politically conservative churchmen were more prejudiced, more narrow-minded socially and religiously, more fundamental and somewhat indiscriminately pro-religious (see Table 7). This profile was <u>not</u> clearly seen in the tables of adjusted means.

Three comments seem in order before closing. First, Social Desirability as measured by the Crowne and Marlow scale was not a significant factor in any relationship, except on the ANOVA results for Location and Number of Services. Secondly, it can be seen from the results that the

Religious Orientation Scales dichotomy of Intrinsic and Extrinsic is inadequate in looking at the relationships studied. It appears that much more research needs to be done in this area using more valid instruments.

## Bibliography


Allport, G. W. The person in psychology: Selected essays. Boston: Beacon Press, 1968.

Allport, G. W. & Ross, J.M. Personal religious orientation and prejudice. Journal of Personality and Social Psychology, 1967, 5, 432-443.

Crowne, D. and Marlowe, D. The approval motive. New York: Wiley, 1964.

Dynes, R. R. Church-sect typology and socio-economic status. American Sociological Review, 1955, 20, 555-560.

Levinson, D. J. The study of anti-Semitic ideology. In T. W. Adorno, et al. The Authoritarian Personality. New York: W. W. Norton, 1950.

McGuire, C. & White, G. D. The measurement of social status. Research Paper in Human Development, No. 3 (Revised). Department of Educational Psychology, The Texas University, Austin, Texas, 1955.

Meyer, R. A. Development of a committed-nominal religious attitudes scale. Unpublished master's thesis, Louisiana State University, 1972.

Rokeach, M. The open and closed mind. New York: Basic Books, 1960.

Table 1

Description Of The Scales Of

The Committed - Nominal Religious

Attitude Scales (CNRAS)

| Scale | Name | Description |
|---|---|---|
| A | General Religiosity | General positive orientation toward religion, both personal and institutional. Generally committed but with some nominal items. Represents average church goer. |
| B | Closed-Minded, Ecclesiastical Nominalism | Very closed-minded and oriented around one congregation and its teachings, worship and other activities. Items involved habitual practices, ritualism, outward appearances and personal gain from religion. |
| C | Situational Religion, True Nominalism | Composed primarily of items which manifest a pragmatic approach to religion and a lack of commitment to anything but self and personal gain. |
| D | Utilitarian Nominalism | A subjection of religion to serve personal, business, and social needs. Egotistical and prejudiced thinking concerning religious activities, and a habitual approach to religion. |
| E | Anti-Clerical, | Three items with strong loadings are critical of church leadership. Most show a strong personal commitment to one's own beliefs, but not to the activities or services of a church. |
| F | True Commitment | Personal faith and devotion, humble evaluation of one's religious life, and strong conviction in what one believes. Participation in church as one part of a religious life. |

TABLE 2

BREAKDOWN OF VARIABLE GROUPINGS

| Independent Variables | | | Dependent Variables | | |
|---|---|---|---|---|---|
| Variable name | Manova levels | Cancorr limits | Scale name | No. items | Scale limits |
| **Demographic Variables** | | | **Committed-Nominal Religious Attitude Scale** | | |
| | | | **Committed factors** | | |
| Age | 3 | 18-84 | CNRAS A | 27 | 27-189 |
| Location | 4 | * | CNRAS E | 15 | 15-105 |
| Education | 3 | 7-25 | CNRAS I | 18 | 18-126 |
| Social status McGuire-White | 2 | 1-7 | | | |
| | | | **Nominal factors** | | |
| Social Status Self-estimate | 3 | 1-7 | CNRAS B | 19 | 19-133 |
| | | | CNRAS C | 18 | 18-126 |
| **Religious Variables** | | | CNRAS D | 16 | 16-112 |
| | | | **Allport's Religious Orientation Scale** | | |
| Religious Affiliation | 2 | * | | | |
| Religious Position | 4 | 1-7 | Intrinsic | 9 | 9-45 |
| | | | Extrinsic | 12 | 12-60 |
| Number of Services/Month | 3 | 0-99 | | | |
| Number of Functions/Mo | 3 | 0-99 | Religious Fund | 10 | 10-70 |
| Group | 4 | * | Altered Ethnocentrism | 10 | 10-70 |
| | | | Social Desirability | 33 | 0-33 |
| | | | Dogmatism | 40 | 40-280 |

*Variable eliminated from canonical correlation analysis

TABLE 3

SUBJECTS

Breakdown of Religious Variables

| Vari. level | Original category criteria | No. of Ss | New level | MANOVA category criteria | No. of Ss |
|---|---|---|---|---|---|
| | | Religious affiliation | | | |
| 0 | Other | 22 | 1 | Catholic level | 74 |
| 1 | Catholic | 74 | 2 | Non-Catholic levels 0 & 2-9 | 263 |
| 2 | Episcopal | 27 | | | |
| 3 | Methodist | 51 | | | |
| 4 | Lutheran | 15 | | | |
| 5 | Presbyterian | 64 | | | |
| 6 | Christian/Church of Christ | 23 | | | |
| 7 | Baptist | 55 | | | |
| 8 | Pentacostal | 1 | | | |
| 9 | Jewish | 5 | | | |
| | | Religious position | | | |
| 1 | Seminary prof., bishop | 5 | 1 | Levels 1 & 2 | 47 |
| 2 | Minister, priest | 42 | 2 | Levels 3 & 4 | 94 |
| 3 | Lay religious, seminarian | 51 | 3 | Levels 5 & 6 | 159 |
| 4 | Elder, deacon | 43 | 4 | Level 7 | 37 |
| 5 | SS teacher | 18 | | | |
| 6 | Lay member | 141 | | | |
| 7 | Non-church member | 37 | | | |

TABLE 4

CORRELATION COEFFICIENTS BETWEEN EACH CANONICAL VARIABLE AND THE VARIABLES OF THE GROUPS

Canonical Variables with Significantly Correlated Means

| Canon. Var. | Variables | | | | | |
|---|---|---|---|---|---|---|
| | Group 1 | | | | | |
| | CNRAS A | CNRAS B | CNRAS C | CNRAS D | CNRAS E | CNRAS I |
| 1 | 0.809 | 0.302 | -0.496 | 0.864 | 0.781 | 0.732 |
| 2 | 0.081 | 0.585 | -0.120 | 0.162 | 0.076 | 0.049 |
| 3 | 0.488 | -0.174 | 0.115 | 0.084 | 0.480 | 0.495 |
| 4 | -0.0414 | -0.357 | -0.203 | 0.005 | -0.084 | 0.141 |
| 5 | 0.147 | 0.086 | -0.176 | 0.235 | 0.075 | 0.241 |

Group 1 cont'd

| | Relig. Funda. | Alter. Ethno. | Dogma-tism | ROS Extrin. | ROS Intrin. | Social Desir. |
|---|---|---|---|---|---|---|
| 1 | 0.496 | 0.278 | 0.286 | -0.361 | 0.822 | 0.096 |
| 2 | 0.615 | 0.789 | 0.593 | 0.265 | -0.034 | 0.180 |
| 3 | 0.394 | -0.142 | 0.092 | -0.121 | 0.293 | 0.006 |
| 4 | 0.108 | 0.034 | -0.486 | -0.127 | -0.035 | 0.121 |
| 5 | 0.122 | -0.245 | 0.127 | 0.552 | 0.163 | 0.383 |

TABLE 4 (continued)

Group 2

| Canon. Var. | Age | Educa-tion | Social Status (M-W) | Social Status (S E) | Relig. Position | Number Serv./ Month | Number Funct./ Month | Polit. Posit. |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.705 | 0.432 | -0.073 | -0.077 | -0.724 | 0.396 | 0.475 | 0.461 |
| 2 | -0.006 | -0.656 | 0.537 | 0.019 | 0.498 | -0.222 | -0.363 | 0.748 |
| 3 | -0.445 | 0.042 | 0.106 | 0.634 | -0.280 | 0.651 | 0.322 | -0.033 |
| 4 | -0.055 | 0.028 | -0.461 | -0.105 | 0.256 | 0.059 | 0.512 | 0.296 |
| 5 | 0.285 | -0.485 | -0.036 | -0.050 | -0.009 | 0.278 | -0.060 | -0.195 |

TABLE 5

CANONICAL CORRELATION ANALYSIS
OF DEPENDENT VARIABLES

Correlation Coefficients Between
Canonical Variables and Dependent Variables

| Can. Var. | Variables | | | | | |
|---|---|---|---|---|---|---|
| | Group 1 | | | | | |
| | CNRAS A | CNRAS B | CNRAS C | CNRAS D | CNRAS E | CNRAS I |
| 1. | 0.923 | 0.296 | -0.283 | 0.965 | 0.911 | 0.914 |
| 2 | -0.145 | 0.873 | 0.588 | 0.431 | 0.058 | -0.048 |
| 3 | -0.195 | -0.332 | 0.168 | 0.225 | 0.327 | -0.063 |
| 4 | -0.022 | 0.166 | -0.367 | -0.383 | 0.071 | -0.316 |
| 5 | 0.120 | -0.100 | 0.605 | -0.247 | 0.231 | 0.109 |
| 6 | -0.269 | -0.042 | -0.213 | -0.280 | -0.042 | 0.214 |

| | Group 2 | | | | | |
|---|---|---|---|---|---|---|
| | Relig. Funda. | Altered Ethno. | Dogma-tism | ROS Extrin. | ROS Intrin. | Social Desir. |
| 1 | 0.844 | 0.138 | 0.373 | -0.168 | 0.884 | 0.278 |
| 2 | 0.124 | 0.811 | 0.745 | 0.568 | -0.147 | -0.151 |
| 3 | 0.303 | -0.323 | 0.381 | -0.184 | -0.336 | -0.058 |
| 4 | 0.156 | 0.434 | 0.038 | -0.624 | -0.056 | 0.396 |
| 5 | -0.358 | -0.096 | 0.349 | -0.288 | 0.271 | -0.149 |
| 6 | 0.167 | 0.148 | -0.194 | -0.378 | 0.082 | -0.847 |

TABLE 6

MANOVA TESTS FOR THE HYPOTHESIS OF NO OVERALL EFFECT DUE TO THE INDEPENDENT VARIABLES

Criteria Based on Hotelling-Lawley's Trace

| Independent Variables | Value of F | Degrees of Freedom | Prob. of F | Characteristic Root | % of Var |
|---|---|---|---|---|---|
| Age | 1.5498 | 24 & 602 | 0.0461 | 0.101511<br>0.022059 | 82.15*<br>17.85** |
| Location | 1.3098 | 36 & 902 | 0.1070 | 0.066742<br>0.062346<br>0.027737 | 42.56<br>39.76<br>17.69** |
| Education | 0.7171 | 24 & 602 | 0.8368 | 0.038588<br>0.018589 | 67.49<br>32.51 |
| Social Status McGuire White | 1.9996 | 12 & 302 | 0.0238 | 0.079454 | 100.00* |
| Social Status Self-Estimate | 1.0634 | 24 & 602 | 0.3816 | 0.077624<br>0.007165 | 91.55<br>8.45** |
| Religious Affiliation | 1.6318 | 12 & 302 | 0.0816 | 0.064842 | 100.00 |
| Religious Position | 1.2838 | 36 & 902 | 0.1246 | 0.092761<br>0.044791<br>0.016161 | 60.35<br>29.14**<br>10.51** |
| Number of Services/Month | 5.5441 | 24 & 602 | 0.0001 | 0.287534<br>0.161079 | 63.56*<br>36.44* |
| Number of Functions/Month | 2.0465 | 24 & 602 | 0.0027 | 0.136506<br>0.026671 | 83.66*<br>16.34** |
| Political Position | 3.9024 | 24 & 602 | 0.0001 | 0.257534<br>0.053621 | 82.77*<br>17.23** |
| Group | 1.3663 | 36 & 902 | 0.0755 | 0.076899<br>0.052274<br>0.034416 | 47.01<br>31.95<br>21.04** |

*Loadings for this significant canonical variable are in Table

**Not sufficient precent of variance represented to permit interpretation of this canonical variable .

TABLE 7

CORRELATION COEFFICIENTS BETWEEN EACH CANONICAL VARIABLE DUE TO SIGNIFICANT MANOVA EFFECTS AND THE DEPENDENT VARIABLES*

| Independent Variable | Canonical Variable | Committed-Nominal Religious Attitude Scale | | | | | |
|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | I |
| Age | 1 | 0.038 | -0.038 | -0.433 | 0.476 | 0.304 | 0.417 |
| Social Status (McGuire-White) | 1 | 0.305 | 0.770 | -0.056 | 0.528 | 0.381 | 0.139 |
| Number of Services/Month | 1 | 0.694 | 0.204 | -0.295 | 0.607 | 0.539 | 0.714 |
| | 2 | -0.201 | -0.086 | -0.028 | -0.308 | -0.112 | -0.068 |
| Number of Functions/Month | 1 | 0.449 | -0.178 | -0.299 | 0.436 | 0.481 | 0.590 |
| Political Position | 1 | 0.241 | 0.440 | -0.002 | 0.386 | 0.263 | 0.083 |

TABLE 7 (continued)

| Independent Variable | Canonical Variable | Other Dependent Variables | | | | | |
|---|---|---|---|---|---|---|---|
| | | Relig. Fund. | Altered Ethno. | Dogma-tism | ROS Extrinsic | Ros Intrinsic | Social Desir. |
| Age | 1 | 0.054 | 0.021 | 0.027 | -0.362 | 0.335 | 0.259 |
| Social Status (McGuire-White) | 1 | 0.537 | 0.631 | 0.524 | 0.213 | 0.133 | 0.061 |
| Number of Services/Month | 1 | 0.827 | 0.052 | 0.182 | -0.315 | 0.653 | 0.352 |
| | 2 | 0.316 | 0.059 | 0.174 | 0.311 | -0.334 | 0.101 |
| Number of Functions/Month | 1 | 0.029 | -0.126 | -0.147 | -0.320 | 0.516 | -0.053 |
| Political Position | 1 | 0.623 | 0.768 | 0.538 | 0.151 | 0.133 | 0.0001 |

*Canonical variables accounting for less than 30.00 percent of the variance are excluded.